

### **Remarks**

Applicants would like to thank the examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicants regard as the invention. By way of the present amendment, claims 11, 13 and 23 have been amended and claims 26-30 have been added. Claims 12, 18 and 21 have been canceled without prejudice. Accordingly, claims 11, 13-17, 19, 20 and 22-30 stand pending in this application. Applicants respectfully request reconsideration and allowance in light of the following remarks.

In the official Office action dated February 10, 2006, the examiner rejected claims 11-25 under 35 U.S.C. § 112, 1<sup>st</sup> paragraph as containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More particularly, the examiner stated that it is not apparent how one would make a box impermeable to radiation since shielding attenuates rather than renders gamma and x-ray radiation impermeable. In an effort to expedite prosecution of the application, applicants have amended claims 11 and 23 to address the concerns raised by the examiner. More particularly, claim 11 now recites a lead base plate configured to "shield" the electronic circuit boards of the control box from radiation. Likewise, claim 23 recites the control means being configured to "shield" portions of the control box and supply box from radiation. It is submitted that the specification enables one skilled in the art to "shield" portions of the control box and/or supply box from radiation (e.g., by way of a lead base plate). Accordingly, it is believed that the claims are in full compliance with 35 U.S.C. § 112, 1<sup>st</sup> paragraph. Applicants therefore respectfully request withdrawal of the corresponding rejection of the claims in this regard.

The examiner further rejected claims 11-25 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards at the invention. Specifically, the examiner stated that the applicant is claiming a result rather than a structure for performing the

effect with respect to the "impermeable to radiation" set forth in claims 11 and 23. In an effort to expedite prosecution of the application, applicants have amended claims 11 and 23 to address the concerns raised by the examiner. More particularly, claim 11 has been amended to include structure (i.e., a "lead base plate") to perform an effect (i.e., "shield the electronic circuit boards of the control box (20) from radiation"). Likewise, claim 23 has been amended to include structure (i.e., a "configured" control means) to perform an effect (i.e., "shield portions of the control box and supply box from radiation"). Accordingly, it is believed that the claims are in full compliance with 35 U.S.C. § 112, 2<sup>nd</sup> paragraph. Applicants therefore respectfully request withdrawal of the corresponding rejection of the claims in this regard.

The examiner further rejected claims 11, 12, 16 and 22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,736,826 to White et al. Applicant respectfully traverses this rejection. The rejection of claim 12 is moot as this claim has been canceled without prejudice. Moreover, White et al. apparently fails to teach or suggest each limitation of the claims. For example, White et al. apparently fails to teach or suggest "a lead base plate" as now required by claim 11. Accordingly, applicants respectfully request withdrawal of the corresponding rejection of claim 11 under 35 U.S.C. § 102(b). Applicants further request withdrawal of the corresponding rejection of claims 16 and 22 as depending from independent claim 11 that is believed to be distinguished from White et al. for the reasons set forth above.

The examiner further rejected claims 11, 12, 14, 15 and 21 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,275,747 to Wada et al. Applicant respectfully traverses this rejection. The rejection of claims 12 and 21 are moot as these claims have been canceled without prejudice. Moreover, Wada et al. apparently fails to teach or suggest each limitation of the claims. For example, Wada et al. apparently fails to teach or suggest "a lead base plate" as now required by claim 11. Accordingly, applicants respectfully request withdrawal of the corresponding rejection of claim 11 under 35 U.S.C. § 102(e). Applicants further

request withdrawal of the corresponding rejection of claims 14 and 15 as depending from independent claim 11 that is believed to be distinguished from Wada et al. for the reasons set forth above.

The examiner further rejected claims 23 and 24 under 35 U.S.C. § 102(e) as being anticipated by Wada et al. The examiner stated that Wada et al. discloses redundant power supplies at column 3, lines 40-44. The referenced portion of Wada et al. describes a memory unit that has a backup circuit connected to a battery. However, Wada et al. apparently fails to teach or suggest each limitation of the claims. For example, Wada et al. apparently fails to teach or suggest the following limitations required by claim 23:

“two power supply sources are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective”

Accordingly, applicants respectfully request withdrawal of the corresponding rejection of claim 23 under 35 U.S.C. § 102(e). Applicants further request withdrawal of the corresponding rejection of claim 24 as depending directly or indirectly from independent claim 23 that is believed to be distinguished from Wada et al. for the reasons set forth above.

The examiner further rejected claims 11, 16, 18 and 19 under 35 U.S.C. § 102(e) as being anticipated by WIPO International Publication No. WO 99/49785 to Lindequist. Applicant respectfully traverses this rejection. The rejection of claim 18 is moot as this claim has been canceled without prejudice. It is also noted that Lindequist is not available as an international publication prior art reference under 35 U.S.C. § 102(e) since the international filing date of Lindequist (i.e., March 30, 1999) is prior to November 29, 2000. See MPEP 706.02(f)(1)(III). Moreover, Lindequist apparently fails to teach or suggest every limitation of the rejected claims. For example, Lindequist apparently fails to teach or suggest “a lead base plate configured to shield the electronic circuit boards of the control box (20) from radiation” as now required by claim 11. Accordingly, applicants respectfully request

withdrawal of the corresponding rejection of claim 11 under 35 U.S.C. § 102(e).

Applicants further request withdrawal of the corresponding rejection of claims 16 and 19 as depending from independent claim 11 that is believed to be distinguished from Lindequist for the reasons set forth above.

The examiner further rejected claims 11-15 and 21-25 under 35 U.S.C. § 103(a) as being unpatentable over Wada et al. in view of U.S. Patent No. 4,709,265 to Silverman et al. More specifically, the Examiner states that Wada et al. discloses elements previously discussed. Applicant respectfully traverses this rejection. The rejection of claims 12 and 21 are moot as these claims have been canceled without prejudice. Moreover, Wada et al. apparently fails to teach or suggest elements previously discussed as set forth by the Examiner. For example, as discussed previously, with respect to claims 11, 13-15 and 22 Wada et al. apparently fails to teach or suggest "a lead base plate" as now required by claim 11. In another example, as discussed previously with respect to claims 23-25, Wada et al. apparently fails to teach or suggest the following limitations now required by claim 23:

"two power supply sources are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective"

Accordingly, Wada et al. in view of Silverman et al. apparently fails to teach or suggest the limitations of claims 11 and 23 as proposed by the examiner.

Accordingly, applicants respectfully request withdrawal of the corresponding rejection of claims 11 and 23 under 35 U.S.C. § 103(a). Applicants further request withdrawal of the corresponding rejection of claims 13-15, 22, 24 and 25 as depending from one of independent claims 11 or 23 that are believed to be distinguished from Wada et al. in view of Silverman et al. for the reasons set forth above.

The examiner further rejected claims 11-16, 21, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Wada et al. in view of White et al. More

specifically, the Examiner states that Wada et al. discloses elements previously discussed. Applicant respectfully traverses this rejection. The rejection of claims 12 and 21 are moot as these claims have been canceled without prejudice. Moreover, Wada et al. apparently fails to teach or suggest elements previously discussed as set forth by the Examiner. For example, as discussed previously, with respect to claims 11 and 13-16, Wada et al. apparently fails to teach or suggest "a lead base plate" as now required by claim 11. With respect to claims 23 and 24, as discussed previously, Wada et al. apparently fails to teach or suggest the following limitations now required by claim 23:

"two power supply sources are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective"

Accordingly, Wada et al. in view of White et al. apparently fails to teach or suggest the limitations of claims 11 and 23 as proposed by the examiner. Applicants therefore respectfully request withdrawal of the corresponding rejection of claims 11 and 23 under 35 U.S.C. § 103(a). Applicants further request withdrawal of the corresponding rejection of claims 13-16 and 24 as depending from one of independent claims 11 or 23 that are believed to be distinguished from Wada et al. in view of White et al. for the reasons set forth above.

The examiner further rejected claims 11-16, 21, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Wada et al. in view of Lindequist. More specifically, the Examiner states that Wada et al. discloses elements previously discussed. Applicant respectfully traverses this rejection. The rejection of claims 12 and 21 are moot as these claims have been canceled without prejudice. Moreover, Wada et al. apparently fails to teach or suggest elements previously discussed as set forth by the Examiner. For example, as discussed previously, with respect to claims 11 and 13-16, Wada et al. apparently fails to teach or suggest "a lead base plate" as now required by claim 11. Moreover, Lindequist only teaches the use of four lead balls (see page 18, lines 21-29) for use in obtaining an absolute measure

of distortion (see page 18, lines 25-27). Neither Lindequist nor Wada et al., alone or in combination, teach or suggest use of a lead base plate configured to shield the electronic circuit boards of the control box (20) from radiation as now required by claim 11. With respect to claims 23 and 24, as discussed previously, Wada et al. apparently fails to teach or suggest the following limitations now required by claim 23:

“two power supply sources are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective”

Accordingly, Wada et al. in view of Lindequist apparently fails to teach or suggest the limitations of claims 11 and 23 as proposed by the examiner. Accordingly, applicants respectfully request withdrawal of the corresponding rejection of claims 11 and 23 under 35 U.S.C. § 103(a). Applicants further request withdrawal of the corresponding rejection of claims 13-16 and 24 as depending from one of independent claims 11 or 23 that are believed to be distinguished from Wada et al. in view of Lindequist for the reasons set forth above.

The examiner further rejected claims 11-19, 21, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Lindequist in view of U.S. Patent No. 4,977,329 to Eckhardt et al. More specifically, the Examiner states that Lindequist discloses elements previously discussed. Applicant respectfully traverses this rejection. The rejection of claims 12, 18 and 21 are moot as these claims have been canceled without prejudice. Moreover, Lindequist apparently fails to teach or suggest elements previously discussed as set forth by the Examiner. For example, as discussed previously, with respect to claims 11, 13-17 and 19, Lindequist apparently fails to teach or suggest “a lead base plate configured to shield the electronic circuit boards of the control box (20) from radiation” as now required by claim 11. With respect to claims 23 and 24, Lindequist apparently fails to teach or suggest the following limitations now required by claim 23:

“two power supply sources are configured to operate redundantly such

that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective”.

Accordingly, Lindequist in view of Eckhardt et al. apparently fails to teach or suggest the limitations of claims 11 and 23 as proposed by the examiner. Therefore, applicants respectfully request withdrawal of the corresponding rejection of claims 11 and 23 under 35 U.S.C. § 103(a). Applicants further request withdrawal of the corresponding rejection of claims 13-17, 19 and 24 as depending from one of independent claims 11 or 23 that are believed to be distinguished from Lindequist in view of Eckhardt et al. for the reasons set forth above.

The examiner further rejected claims 11-21, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Lindequist in view of U.S. Patent No. 6,355,878 to Kim. More specifically, the Examiner states that Lindequist discloses elements previously discussed. Applicant respectfully traverses this rejection. The rejection of claims 12, 18 and 21 are moot as these claims have been canceled without prejudice. Moreover, Lindequist apparently fails to teach or suggest elements previously discussed as set forth by the Examiner. For example, as discussed previously, with respect to claims 11, 13-17, 19 and 20, Lindequist apparently fails to teach or suggest “a lead base plate configured to shield the electronic circuit boards of the control box (20) from radiation” as now required by claim 11. With respect to claims 23 and 24, Lindequist apparently fails to teach or suggest the following limitations now required by claim 23:

“two power supply sources are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective”.

Accordingly, Lindequist in view of Kim apparently fails to teach or suggest the limitations of claims 11 and 23 as proposed by the examiner. Therefore, applicants respectfully request withdrawal of the corresponding rejection of claims 11 and 23 under 35 U.S.C. § 103(a). Applicants further request withdrawal of the

corresponding rejection of claims 13-17, 19, 20 and 24 as depending from one of independent claims 11 or 23 that are believed to be distinguished from Lindequist in view of Kim for the reasons set forth above.

It is also noted that International Application publication No. WO 99/49785 to Lindequist has an international filing date of March 30, 1999 and U.S. Patent No. 5,275,747 to Wada et al. has a filing date of November 13, 1998. It is noted that both of these references may be removed as prior art by merely perfecting our foreign filing date of November 10, 1998. While applicants set forth the claims are distinguished over the references as discussed above, applicants are preparing to file a certified copy of our French application No. 9814141 together with an English translation of the French application to establish support forth the claims rejected by the Lindequist and Wada et al. references.

The examiner further rejected claims 11-13, 16 and 21-25 under 35 U.S.C. § 103(a) as being unpatentable over White et al. in view of Silverman et al. More specifically, the Examiner states that White et al. discloses elements previously discussed. Applicant respectfully traverses this rejection. The rejection of claims 12 and 21 are moot as these claims have been canceled without prejudice. Moreover, White et al. apparently fails to teach or suggest elements previously discussed as set forth by the Examiner. For example, as discussed previously, with respect to claims 11, 13, 16 and 22 White et al. apparently fails to teach or suggest "a lead base plate" as now required by claim 11. With respect to claims 23-25, White et al. apparently fails to teach or suggest the following limitations now required by claim 23:

"two power supply sources are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the microprocessors if the other power supply source becomes defective".

Accordingly, White et al. in view of Silverman et al. apparently fails to teach or suggest the limitations of claims 11 and 23 as proposed by the examiner.

Therefore, applicants respectfully request withdrawal of the corresponding rejection



of claims 11 and 23 under 35 U.S.C. § 103(a). Applicants further request withdrawal of the corresponding rejection of claims 13, 16, 22, 24 and 25 as depending from one of independent claims 11 or 23 that are believed to be distinguished from White et al. in view of Silverman et al. for the reasons set forth above.

Claims 26-30 have been added to provide additional claim scope and are believed to be distinguished from the prior art including the references applied by the examiner. For example, with respect to claim 28, the references applied by the examiner apparently fail to teach or suggest the combination of limitations of claim 28 including two power supply sources that are configured to operate redundantly such that each power supply source is capable of replacing the other power supply source to provide power to the electronic circuit boards to determine movements to be made by the manipulation equipment (41) if the other power supply source becomes defective. Dependent claims 26, 27 and 29 are also believed to be distinguished over the references applied by the examiner. For example, claims 26, 27 and 29 depend directly or indirectly from independent claims 11 or 28 which are believed to be distinguished the references applied by the examiner for reasons set forth above. With respect to claim 30, the references applied by the examiner, for example, apparently fail to teach or suggest the combination of limitations of claim 30 including the control means being "configured such that the control box and supply box are substantially shielded from gamma rays from a radioactive source." It is noted that the specification discusses operation in a confinement containment subjected to "radioactive radiation." (E.g., see page 4, lines 25-28). The referenced limitations of claim 30 are therefore supported by the disclosure since radioactive radiation inherently includes gamma rays.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

Appl. No. 09/831,084  
Amdt. dated May 30, 2006  
Reply to Office action of February 10, 2006

If there are any fees resulting from this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. 33486.

Respectfully submitted,  
PEARNE & GORDON LLP

  
Stephen S. Wentsler, Reg. No. 46403

1801 East 9<sup>th</sup> Street  
Suite 1200  
Cleveland, Ohio 44114-3108  
216-579-1700

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